REMARKS

INTRODUCTION:

In accordance with the foregoing, claim 23 has been cancelled without prejudice or disclaimer, and claims 1, 9 and 25 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1, 4-7, 9, 19-22, and 25 are pending and under consideration. Reconsideration is respectfully requested.

RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT:

It was pointed out that the status identifier of claim 25 should properly recite: "Currently amended." This correction has been made.

Hence, the amendment is submitted to be in proper form.

REJECTION UNDER 35 U.S.C. §103:

A. In the Office Action, at pages 3-6, numbered paragraph 5, claims 1, 4-7, 9 and 19-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over WO 02/13999 A1 (hereafter '999) in view of Sato et al. (US 2001/0023593; hereafter, Sato). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Independent claims 1 and 9 have been amended to insert "in an absence of sulfur compounds."

It is respectfully submitted that '999 requires that the metal particle suspension include a sulfur compound, as recited in Tomonari (US 2003/0170382 A1; hereafter, Tomonari), which is a national stage of WO 02/13999 A1, and is used as a translation thereof, the Abstract of which is recited below for the convenience of the Examiner:

> The present invention relates to a colloidal metal solution comprising colloidal metal particles with a sulfur compound of low molecular weight such as mercaptoacetic acid, mercaptopropionic acid, mercaptoethanol, etc. as a protective colloid on the particle surfaces and having a pH of 8-14. According to the present invention, a colloidal metal solution having a high concentration and a distinguished dispersion stability with a small amount of the protective colloid can be provided with a commercially and economically high advantage without any operation such as centrifuge, etc. (emphasis added)

In contrast, amended independent claims 1 and 9 of the present invention do not require the use of a sulfur compound. Thus, it is respectfully submitted that Tomonari, and hence '999, teaches away from the present claimed invention.

It is respectfully submitted that Sato teaches a substrate to which it is desirable to apply volatile antibacterial substances such as allyl-isothiocyanate (see Example 1, paragraph [9939] of Sato). Sato does not teach or suggest utilizing a substrate to which it is desirable to apply a non-volatile antibacterial substance such as silver.

Hence, even if combined, '999 and Sato do not teach or suggest amended independent claims 1 and 9 of the present invention. Thus, it is respectfully submitted that amended independent claims 1 and 9 are patentable under 35 U.S.C. §103(a) over WO 02/13999 A1 in view of Sato et al. (US 2001/0023593), alone or in combination. Since claims 4-7 and 19-22 depend from amended independent claim 1, claims 4-7 and 19-22 are patentable under 35 U.S.C. §103(a) over WO 02/13999 A1 in view of Sato et al. (US 2001/0023593), alone or in combination, for at least the reasons amended independent claim 1 is patentable over same.

B. In the Office Action, at page 6, numbered paragraph 6, claim 25 was rejected under 35 U.S.C. §103(a) as being unpatentable over WO 02/13999 A1 (hereafter '999) in view of Sato et al. (US 2001/0023593; hereafter, Sato) as applied to claims 1, 4-7, 9 and 19-22 above, and further in view of Mayhue (USPN 4,067,205; hereafter, Mayhue). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Independent claim 25 has been amended to add the terminology "in an absence of sulfur compounds " and "to provide non-aerosol antibacterial activity."

As noted above, '999 requires that the metal particle suspension include a sulfur compound, and amended independent claim 25 of the present invention recites that sulfur compounds are absent. Hence, '999 teaches that colloidal metal particles must be utilized with a sulfur compound of low molecular weight, such as mercaptoacetic acid, mercaptopropionic acid, mercaptoethanol, etc., as a protective colloid on the particle surfaces, and be applied to a substrate, in contrast to amended independent claim 25 of the present invention, which utilizes metal particles in an absence of sulfur compounds applied to a surface of a copper or stainless steel filter. Thus, '999 teaches away from amended independent claim 25 of the present invention.

It is respectfully submitted that, as noted above, Sato does not teach or suggest utilizing a substrate to which it is desirable to apply an antibacterial substance such as silver, but instead teaches that an air conditioner has an antibacterial and mold-proofing component that is

evaporated to provide a release rate of the antibacterial substance, such as, for example, allyl-isothiocyanate, to provide an aerosol antibacterial protection. Hence, Sato teaches away from the present invention. Independent claim 25 of the present invention has been amended to recite "to provide non-aerosol antibacterial activity."

Mayhue fails to teach or suggest utilizing "coating, onto the surface of the copper or stainless steel filter, a volatile solution dispersed with nano-sized metal particles selected from the group consisting of silver (Ag), aluminum (Al), copper (Cu), iron (Fe), zinc (Zn), cadmium (Cd), palladium (Pd), rhodium (Rh) and chrome (Cr), in an absence of sulfur compounds," as is recited in amended independent claim 25 of the present invention.

Thus, even if combined, '999, Sato and Mayhue do not teach or suggest amended independent claim 25 of the present invention.

Hence, amended independent claim 25 of the present invention is submitted to be patentable under 35 U.S.C. §103(a) over WO 02/13999 A1 in view of Sato et al. (US 2001/0023593) as applied to claims 1, 4-7, 9 and 19-22 above, and further in view of Mayhue (USPN 4,067,205).

C. In the Office Action, at pages 7-8, numbered paragraph 7, claim 23 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nishida et al (USPN 5,897,673; hereafter, Nishida) in view of Zhou et al. (USPN 5,804,057; hereafter, Zhou). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Independent claim 23 has been cancelled. Hence, the rejection of claim 23 under 35 U.S.C. §103(a) over Nishida et al (USPN 5,897,673) in view of Zhou et al. (USPN 5,804,057) is now moot.

EXAMINER'S RESPONSE TO ARGUMENTS:

In the Office Action, at pages 8-11, the Examiner responded to Applicants' arguments filed July 24, 2007.

In view of the above amendments and arguments, the Examiner's concerns are respectfully submitted to be overcome.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further

outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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